

Please replace the paragraph starting on line 25 of page 8 with the following:

A<sup>2</sup>  
-- Feed pin 20 is connected between the top plate 10 and a first end of a short length of transmission line 30 having characteristic impedance  $Z_0$  and length 1. The transmission line 30 has a second end coupled to a power amplifier (PA) 70 at terminal 60. Transmission line 30 is used to fine-tune the input impedance of the radiating element for class-F and inverse class-F operation.--

Please replace the paragraph starting on line 31 of page 15 (and extending onto page 16) with the following:

A<sup>3</sup>  
-- Figures 4a and 4b illustrate the top view and side view of the offset TLM optimized to operate at 2.2GHz respectively. A top plate 100 is placed at a height  $h$  over a ground plane. The dimensions of the top plate are 55.88 mm x 55.88 mm, and the required length of transmission line used to fine tune the offset-TLM is 25 mm. There are no shorting pins and only a single feed pin 200. The feed pin 200 is connected between the top plate 100 and a first end of a short length of transmission line 300, similar to the transmission line 30 shown in Figures 1A and 3B. The transmission line 300 has a second end coupled to a power amplifier (PA) 700 at terminal 600. The lack of the shorting pins causes significant increases in the area of the top plate and length of the transmission line 300, as compared to the area and length required for a PIFA having two shorting pins and a feed pin. Note that the input impedance to this radiating element is approximately that of an inverse class-F impedance.--

**IN THE CLAIMS:**

Cancel claims 16, 17, 34 and 35.

Replace Claims 1, 2, 3, 21, 22, 23, 38 and 39 with amended claims 1, 2, 3, 21, 23, 38 and 39.

A<sup>4</sup>  
Claim 1 (Amended) A Planar inverted-F Antenna (PIFA) comprising: